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(12) United States Patent

Saletta

(54) METHOD AND APPARATUS FOR AUTOMATICALLY CORRECTING IMAGE MISALIGNMENT ARISING IN A REAR-PROJECTION LCD TELEVISION DISPLAY

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(57) ABSTRACT

A method and apparatus for projecting an image is provided. The apparatus includes a projector operable to receive a signal representative of an image and to generate light representative of the image. A lens assembly is provided for receiving from the projector the generated light representative of the image and projecting the generated light. The generated light is projected onto a display screen so that the image is visible to a viewer. An image alignment arrangement adjusts a relative position of the image on the display screen. The image alignment arrangement, which is operable to project a test image from the projector onto the display screen, includes at least one sensor located on the display screen for detecting the test image and generating an alignment signal representative of an amount of misalignment of the test image on the display screen. The image alignment arrangement also includes a mechanical actuator for adjusting a relative position of the projector in response to the alignment signal so that the test image is properly aligned on the display screen.

33 Claims, 5 Drawing Sheets

